Hydrobiologia **363:** v–vi, 1998.
T. Tamminen & H. Kuosa (eds), Eutrophication in Planktonic Ecosystems: Food Web Dynamics and Elemental Cycling.

Contents

Foreword ..... vii–viii

Interactions of top-down and bottom-up control in planktonic nitrogen cycling
by P.M. Glibert 1–12

Population regulation and role of mesozooplankton in shaping marine pelagic food webs
by T. Kiørboe 13–27

Retention versus export food chains: processes controlling sinking loss from marine pelagic systems
by P. Wassmann 29–57

A theoretical approach to structuring mechanisms in the pelagic food web
by T.F. Thingstad 59–72

30 years' eutrophication in shallow brackish waters – lessons to be learned
by U. Schiewer 73–79

Relations between planktivorous fish abundance, zooplankton and phytoplankton in three lakes of differing productivity
by J. Sarvala, H. Helminen, V. Saarikari, S. Salonen & K. Vuorio 81–95

Planktonic food web in marine mesocosms in the Eastern Mediterranean: bottom-up or top-down regulation?
by P. Pitta, A. Giannakourou, P. Divanach & M. Kentouri 97–105

Coupling of autotrophic and heterotrophic processes in a Baltic estuarine mixing gradient (Pomeranian Bight)
by G. Jost & F. Pollehne 107–115

Variability of nutrient limitation in the Archipelago Sea, SW Finland
by T. Kirkkala, H. Helminen & A. Erkkilä 117–126

Effects of environmental factors on the phytoplankton community in the Gulf of Finland – unattended high frequency measurements and multivariate analyses
by E. Rantajärvi, V. Gran, S. Hällfors & R. Olsonen 127–139

On the production, elemental composition (C, N, P) and distribution of photosynthetic organic matter in the Southern Black Sea
by A. Yılmaz, S. Tuğrul, Ç. Polat, D. Ediger, Y. Çoban & E. Morkoç 141–156

Elemental composition of seston and nutrient dynamics in the Sea of Marmara
by S.Ç. Polat, S. Tuğrul, Y. Çoban, Ö. Basturk & I. Salihoglu 157–167

Impact of increased river discharge on the phytoplankton community in the outer Oslofjord, Norway
by S. Kristiansen 169–177

Vertical migration of autotrophic micro-organisms during a vernal bloom at the coastal Baltic Sea – coexistence through niche separation
by K. Olli, A.-S. Heiskanen & K. Lohikari 179–189

Group-specific phytoplankton biomass/dissolved carbohydrate relationships in the Gulf of Trieste (Northern Adriatic)
by S. Terzic, M. Ahel, G. Cauwet & A. Malej 191–205
The use of spectral fluorescence methods to detect changes in the phytoplankton community
by J. Seppälä & M. Balode 207–217
The budgets of nitrogen and phosphorus in shallow eutrophic Lake Võrtsjärv (Estonia)
by P. Nõges, A. Järvet, L. Tuvikene & T. Nõges 219–227
Vertical and seasonal distributions of micro-organisms, zooplankton and phytoplankton in a eutrophic lake
by A.-M. Ventelä, V. Saarikari & K. Vuorio 229–240
Biochemical composition of particulate organic matter and bacterial dynamics at the sediment–water interface in a Mediterranean seagrass system
by R. Danovaro, N. Della Croce & M. Fabiano 241–251
Development of microbial community during *Skeletonema costatum* detritus degradation
by K. Künnis 253–260
Nutrient composition, microbial biomass and activity at the air–water interface of small boreal forest lakes
by U. Münster, E. Heikkinen & J. Knulst 261–270
Seasonal and spatial distribution of bacterial production and biomass along a salinity gradient (Northern Adriatic Sea)
by A. Puddu, R. La Ferla, A. Allegra, C. Bacci, M. Lopez, F. Oliva & C. Pierotti 271–282
Incorporation of spatial structure into the analysis of relationships between environment and marine microbiological parameters
by J. Truu, T. Nõges, K. Künnis & M. Truu 283–288
Biomass and feeding activity of phagotrophic mixotrophs in the northwestern Black Sea during the summer of 1995
by T. Bouvier, S. Becquevort & C. Lancelot 289–301
Spatial structure and ecological efficiency in the summer zooplankton of a glacial lake
by G.A. Galkovskaya & V.V. Arapov 303–307
Nitrogen, phosphorus and *Daphnia* grazing in controlling phytoplankton biomass and composition – an experimental study
by H. Karjalainen, S. Seppälä & M. Walls 309–321
In situ grazing pressure pressure and diel vertical migration of female *Calanus euxinus* in the Black Sea
by S. Besiktepe, A.E. Kideys & M. Unsal 323–332
Zooplankton–phytoplankton interactions: a possible explanation of the seasonal succession in the Kuršių Marios lagoon
by Z.R. Gasiūnaitė & I. Olenina 333–339
Closing address: Perspectives on basic and applied, freshwater and marine pelagic research
by J. Sarvala 341–344